cotton growing under rrigation, and (6) by intensive fertilisation with inorganic manures.

638. The cotton seed distribution scheme sponsored and aided by the Indian Central Cotton Committee, multiplication and distribution of varieties Sel. 69 (medium staple) and M.A.T. (long staple) which had already been evolved by the department was undertaken in a systematic manner. As a result of this scheme very good progress has been made in replacing inferior varieties. The area under improved cotton is increasing very rapidly on account of systematic distribution.

639. To improve the tempo of the drive to replace inferior cotton, improved cotton strains like Jayawant-Jayadhar, Laxmi, Co.4, B. 40 were purchased under depart mental auspices from the neighbouring Provinces of Bombay and Madras and issued for nearly 35,000 acres.

(iii) Sericulture.

640. Mysore filature raw silk registered a sudden drop from Rs. 43 in May 1951 to Rs. 33 in June 1951 and to Rs. 28 in August 1951. During the rest of the year, the price moved around Rs. 28. Even at this low rate, demand was very poor. Cocoon prices also dropped from Rs. 1-15-0 per lb. in April 1951 to Rs. 1-6-0 in June 1951 and Rs. 1-4-0 in March 1952 in consonance with the raw silk market. The prices that prevailed during the year were extremely low when compared with those of the previous year. **Market Conditions of Silk Industry**

641. The total area at the beginning of the year was 90,500 acres. High prices of cocoons and silk in the first quarter of the year brought about an increase in the area under mulberry to 1·1 lakh acres by the middle of June 1951. The total extent under mulberry at the end of the year was about 1·05 lakh acres. **Mulberry Cultivation.**

642. In Government Farms, 56 acres were cultivated with mulberry, of which 26 acres were irrigated and the balance rainfed. Two acres were planted newly on the Hill Station at Kemmangundi (K. R. Hills). **Government Mulberry Garden.**

643. The demand for basic seed of foreign races which helps to increase preparation of cross breed disease-free

AGRI., CO-OPN. & FORESTS

layings was on the increase. A seed Cocoon Farm was sanctioned and 56 acres of land situated at Guduvanahalli in Devanhalli Taluk were granted. An electric irrigation pump was installed in the Government Silk Farm, Mallenahalli, Devanhalli Taluk.

644. The output of basic seed cocoons of foreign races during the year was 21·68 (23·48) lakhs. The Government Silk Farm, Kunigal, produced 4·34 (4·50) lakhs seed cocoons of the Mysore race. The foreign race superior quality seed cocoons that were harvested during the year was 1·53 (1·28) lakhs. The maximum yield for a hundred layings reached 29,500 cocoons on the Biligirirangan Hills and 26,000 (28,000) on the K. R. Hills. The average was 18,500 seed cocoons per 100 disease-free layings.

Seed campaign and seed supply.

645. The total area was 3,485 (3,338) acres in the "Mysore Seed Campaign" area. One hundred and forty-seven acres were newly planted in the Kunigal and Sugganahalli seed campaign area which accounts for the increase in the area under mulberry.

646. New irrigated gardens planted during 1950-51 in 200 acres in Kunigal, Thyamagondlu and Sugganahalli areas, helped to increase production of Mysore race seed cocoons during summer months.

647. The total number of disease-free layings prepared and distributed free of cost to seed rearers was 25·10 (23·62) lakhs. There were 4,380 (3,892) seed rearers during the year. The total output of Mysore seed cocoons was 53·10 (46) crores. The Sericultural Department of Madras State purchased a large quantity of seed cocoons. Surplus cocoons were sold for reeling. Seed campaign area was continued to be free from pebrine.

Production of foreign race seed cocoons.

648. The number of foreign race disease-free layings distributed free was 4·06 (5·08) lakhs. Due to the unfavourable weather conditions, there was a fall in the volume of rearings. The aggregate output of seed cocoons was 5·67 (6·80) crores. Owing to high temperature and low humidity, the average production per 100 layings during the year was 12,500 (15,000).

Hill Stations.

649. The two Hill Stations on the Biligirirangan Hills and Kemmangundi (K. R. Hills) prepared 30,187 (25,300) revitalised foreign race disease-free layings.

650. Failure of rains during the greater part of the year affected the mulberry gardens reducing the leaf production and curtailing rearing operations. The number of disease-free layings prepared and distributed by Government and aided grainages was 269·13 (211·06) lakhs. This production was the highest on record.

651. There were 22 (20) Government grainages during the year. Grainages were started at Santhemavathur (Kunigal Taluk) and Devanhalli, bringing the total number of Government grainages to 22. Government and aided grainages prepared and distributed during the year were 45 per cent of the entire demand as against 33 per cent during the previous year.

Silk price of Disease-free layings.

652. During April and May 1951, the sale price was Rs. 6 per 100 cross breed and Rs. 30 per 100 pure Mysore race disease-free layings. Consequent on low prices of reeling cocoons, the sale price was reduced in June 1951 to Rs. 5 and Rs. 2-8-0 per 100 cross breed and Mysore race disease-free layings, respectively.

Sericultural Education.

653. Training in mulberry cultivation, silkworm rearing and grainage technique continued to be given in the Central Farms. Sixteen students received training during the year and 11 students completed the training. Of these, 5 students were scholars deputed by the Governments of Madhya Bharat, Uttar Pradesh, Assam and Ceylon.

Assistance to sericulturists and propaganda.

654. One hundred cart-loads of green mulberry cuttings, 2,200 saplings, 1,500 seedlings and 1,500 grafts were supplied from the Government Farms free of cost to sericulturists for planting new gardens or replanting old gardens. The demand for the supply of groundnut cake powder as a manure for mulberry gardens at controlled rates was on the increase.

655. There were 61 propaganda outposts at important Sericultural Centres in the State. The staff attached to these outposts contacted sericulturists and reelers and endeavoured to teach and demonstrate improved scientific methods in mulberry cultivation, silkworm rearing and silk reeling. The propaganda staff collected essential sericultural statistics, ascertained the needs of the sericulturists in respect of disease-free layings and mulberry cuttings and arranged supply.

AGRI., CO-OPN. & FORESTS

Silk Reeling.

656. Continuous depressing prices and poor demand harassed the reeling industry throughout the year. The reeling department of the Mysore Spun Silk Mills, Ltd., which had suspended work for over a year re-started with 80 basins. Three factories of the Mysore Silk Filatures, Ltd., T.-Narsipur, *viz.*, the Mysore, Chamarajanagar and the T.-Narsipur branches continued to work 400 basins. The other branches at Sidlaghatta, Mamballi, Kuderu and Santhemarahalli remained idle. The Kisan Silk Industries, Ltd., Melur, worked only 10 basins. The Government Silk Filature, Kanakapura, was closed in March 1952. Heavy unsold stocks, downward price trend, poor demand and in Joint Stock Concerns, want of working capital were the main causes for suspension of work. The aggregate production of filature raw silk for the year was 86,500 (63,929) pounds in spite of the adverse conditions prevailing against a production potential of 4 lakh pounds.

657. The over-all production of silk reeled in filatures and charkas was about 13·30 lakhs pounds as against 16 lakhs in the previous year. This reduction is attributed for inadequate and untimely rainfall.

658. The Mysore Silk Filatures, Ltd., T.-Narsipur, was assisted by the grant of a cash loan of Rs. 2 lakhs and a guaranteed produce loan of Rs. 8 lakhs through the Bank of Mysore, Ltd.

Sericultural Research, Channapatna.

659. Randomised Plot experiments on a combination of green manures with routine manures were planned in consultation with the Chief Investigator, Silkworm Nutrition, in the Bio-Chemistry Department of the Indian Institute of Science. Of the 26 acres acquired under the Kanva Reservoir, six acres were prepared and planted to raise seedling stocks required for grafting. This work was commenced with the grant of Rs. 25,400 by the Central Silk Board.

660. The experiments on Silkworm Nutrition were continued at the Indian Institute of Science, Bangalore. A technique for feeding worms with dissicated and powdered mulberry leaves under controlled conditions and the sandwich leaf method was evolved.

661. A programme of work for 1952-53 indicating definite lines of investigation has been drawn up by the

Investigator-in-charge of Experiments at the Indian Institute of Science, Bangalore.

Sericultural Co-operation.

662. There were five Sericultural Co-operative Societies during the year. The Mysore Handloom Weavers' Co-operative Society continued to assist weavers by purchase and sale of silk to members. The continued fall in prices limited the scope of work and caused heavy losses during the year.

Rural Development and Welfare Work.

663. Propaganda staff and Farm Officers devoted special attention to intensive development work in the selected areas. Chandrikes were stocked and hired to sericulturists in two Multi-purpose Co-operative Societies in T.-Narsipur and Kunigal Taluks.

Cocoon markets.

664. There were three voluntary cocoon markets at Ramanagaram, Mellur (Sidlaghatta Taluk) and Santhemarahalli (Chamarajanagar Taluk) started with grants from the Central Silk Board. Sericulturists and silk reelers in Mellur and Santhemarahalli markets did not avail of the facilities. These two markets were closed in August 1951. The Ramanagaram market was more popular and served to standardise the work of other markets run by private enterprise in Ramanagaram.

665. Loans amounting to Rs. 3,250 were sanctioned to seven sericulturists.

666. The second meeting of the Mysore Silk Advisory Committee was held in May 1951 and twenty subjects were discussed at the meeting.

667. Eight development schemes calculated to help the development of the Sericultural Industry in the State and estimated to cost Rs. 40 lakhs were finalised and approved by the Indian Planning Commission. These schemes are programmed to be executed in two stages, the two-year and the five-year plan, the entire schemes being completed at the end of five years.

668. The Silkworm Seed (Control of Distribution) Bill, 1952 was introduced in the Legislative Assembly in July 1952 Session and passed.

669. The department participated in the Dasara Exhibition in Mysore and the Industrial and Fine Arts Exhibition held at Bangalore. Demonstrations in silkworm rearing and silk reeling with the improved cottage reeling